

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) An anti-microbial polymeric film comprising a polymeric substrate layer having a surface, and on said surface a polymeric coating having a thickness of from about 0.01 to about 14.0 μm and comprising an anti-microbial compound in an amount of from about 0.1 to about 50% by weight of the coating layer, wherein said coating provides either one or both:

- (i) a heat-seal strength of from 100 g/in to 2500 g/in when heat-sealed to itself and
- (ii) a barrier to either one or both of water vapor and oxygen, such that the water vapor transmission rate is in the range of 0.01 to 10g/100 inches²/day and the oxygen transmission rate is in the range of 0.01 to 10 cm³/100 inches²/day/atm.

2. (Currently Amended) ~~An~~The anti-microbial film according to claim 1 wherein the anti-microbial compound is in particulate form.

3. (Currently Amended) ~~An~~The anti-microbial film according to claim 1 or 2 wherein the anti-microbial compound is present in an amount of from about 0.1 to about 5%.

4. (Currently Amended) ~~An~~The anti-microbial film according to claim 3 wherein the anti-microbial compound is an inorganic compound comprising a metal or metal ions selected from the group consisting of silver, copper, zinc, tin, mercury, lead, cobalt, nickel, manganese, arsenic, antimony, bismuth, barium, cadmium, chromium, and combinations thereof.

5. (Currently Amended) ~~An~~The anti-microbial film according to claim 3, wherein the anti-microbial compound has the formula $M^1_a H_b A_c M^2_2 (PO_4)_3 \cdot nH_2O$ wherein:

M^1 is at least one metal ion selected from the group consisting of silver, copper, zinc, tin mercury, lead, iron, cobalt, nickel, manganese, arsenic, antimony, bismuth, barium, cadmium and chromium;

A is at least one ion selected from an alkali or alkaline earth metal ion;

M^2 is a tetravalent metal ion;

a and b are positive numbers and c is 0 or a positive number such that $(ka+b+mc)=1$;

k is the valence of metal M^1 ;

m is the valence of metal A; and

$0 \leq n \leq 6$.

6. (Currently Amended) ~~A~~The anti-microbial film according to claim 3 wherein the anti-microbial compound has the formula $Ag_aH_bA_cZr_2(PO_4)_3 \cdot nH_2O$ wherein:

A is an alkali or alkaline earth metal ion;

a, b and c are positive numbers such that $(a+b+mc)=1$;

m is the valence of metal $A_{\frac{1}{2}}$.

7. (Currently Amended) ~~A~~The anti-microbial film according to claim 5 wherein a is in the range of 0.1 to 0.5.

8. (Currently Amended) ~~A~~The anti-microbial film according to claim 5 wherein b is at least 0.2.

9. (Currently Amended) ~~A~~the anti-microbial film according to claim 5 wherein the metal-A is a sodium ion and m is 1.

10. (Currently Amended) ~~A~~the anti-microbial film according to claim 4 wherein the anti-microbial compound comprises at least one element selected from the group consisting of silver, copper, or zinc.

11-13. (Cancelled)

14. (Currently Amended) ~~A~~The anti-microbial film according to claim 1 wherein haze in-the film is less than about 15%.

15. (Currently Amended) ~~A~~The anti-microbial film according to claim 2 wherein a volume distributed mean particle diameter of the anti-microbial particles is in the range of 1.0 to 3.0 μm .

16. (Currently Amended) ~~A~~The anti-microbial film according to claim 2 wherein the coating has a thickness and said thickness is in the range of 70 to 130% of a volume distributed mean particle diameter of the anti-microbial particles.

17. (Currently Amended) ~~A~~The anti-microbial film according to claim 2 wherein the thickness of the coating is less than a volume distributed mean particle diameter of the anti-microbial particles.

18. (Currently Amended) ~~A~~The anti-microbial film according to claim 1 wherein said polymeric substrate is selected from the group consisting of polyester, polyolefin, polyamide and PVC.

19. (Currently Amended) ~~A~~The anti-microbial film according to claim 1 wherein said polymeric substrate comprises polyester.

20. (Currently Amended) ~~A~~The antimicrobial film according to claim 1 wherein said polymeric substrate comprises polyethylene terephthalate.

21. (Currently Amended) ~~A~~The antimicrobial film according to claim 1 wherein said polymeric substrate has a degree of shrinkage in one or both dimensions of about 10% to about 60% when placed in a water bath at 100°C for 30 seconds.

22. (Currently Amended) ~~A~~The antimicrobial film according to claim 1 ~~further comprising a gloss wherein the~~having a 60° gloss is of at least 70.

23. (Currently Amended) ~~A~~The anti-microbial film according to claim 1 wherein the polymer of the coating layer is selected from the group consisting of PVDC, PCTFE, PE, PP, EVOH, PVOH, EVA, polyester and caprolactone.

24. (Currently Amended) ~~A~~The anti-microbial film according to claim 6 wherein a is in the range 0.1 to 0.5.

25. (Currently Amended) ~~A~~The anti-microbial film according to claim 6 wherein b is at least 0.2.

26. (Currently Amended) ~~A~~The anti-microbial film according to claim 6 wherein the metal A is a sodium ion and m is 1.

27. (Currently Amended) ~~An~~The anti-microbial film according to claim 17 wherein the thickness of the coating is in the range of 70 to 99% of the volume distributed mean particle diameter of the anti-microbial particles.

28. (Currently Amended) ~~An~~The anti-microbial film according to claim ~~121~~ wherein said coating layer further provides an oxygen transmission rate in the range of 0.01 to 10 cm³/100 inches²/day/atm.